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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* JOSEPH MILTON GRAHAM  
and SYLVESTER FREEMAN

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Appeal 2008-5279  
Application 10/811,342  
Technology Center 2600

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Decided:<sup>1</sup> March 12, 2009

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Before JOSEPH F. RUGGIERO, JOHN A. JEFFERY,  
and KARL D. EASTHOM, *Administrative Patent Judges*.

EASTHOM, *Administrative Patent Judge*.

DECISION ON APPEAL

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<sup>1</sup> The two month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the decided date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

## STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134 from the Final Rejection of claims 1-30, the only claims pending (App. Br. 2). We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

Appellants' invention relates to a method for forecasting growth of a wireless telecommunications system. Appellants determine the current minutes of use (MOU) to help determine growth. Appellants also disclose that some embodiments of the invention may be used to express the individual sector busy hour (ISBH) in "erlangs" (*see* FF 2, *infra*), which incorporates voice and data traffic during peak traffic hours (Fig. 2; Abstract; Spec. ¶¶ 0002, 0008, 0029, 0033).

Claim 1 is illustrative of the invention and reads as follows:

1. A method for forecasting growth in a wireless telecommunications system, wherein the wireless telecommunications system includes a plurality of system sectors, the method comprising the steps of:

determining the current system traffic level for the wireless telecommunications system;

determining the current minutes of use (MOU) for the wireless telecommunications system, the current MOU being the number of minutes used over a given time period;

estimating the future minutes of use (MOU) for a future period of time for the wireless telecommunications system; and

forecasting the future system traffic level for the wireless telecommunications system based on the current system traffic level, the current MOU and the estimated future MOU.

The Examiner relies on the following prior art reference:

Broyles US 7,142,868 B1 Nov. 28, 2006  
(filed Apr. 22, 2002)

The Examiner rejected:

Claims 1-9, 12, and 14-30 as anticipated under 35 U.S.C. § 102(e) by Broyles.

Claims 10, 11 and 13 as obvious under 35 U.S.C. § 103(a) over Broyles.

## ISSUE

Appellants' arguments regarding the anticipatory rejection of the claims under Broyles are directed toward claim 1.<sup>2</sup> The issue is: did Appellants show that the Examiner erred in finding that Broyles discloses

<sup>2</sup> Appellants nominally indicate (App. Br. 8-10) that claims 8, 9, 12, 14, and 16 do not stand or fall together with claim 1. Notwithstanding these separate groupings, Appellants' mere recitations of claim limitations do not present any separate arguments for patentability of any of the claims apart from the same arguments presented for claim 1. Accordingly, claims 1-9, 12, and 14-30 constitute a group with claim 1 as representative. *See* 37 C.F.R. § 41.37(c)(1)(vii).

determining the current system traffic level and the current minutes of use (MOU) for the wireless telecommunications system?

#### FINDINGS OF FACT (FF)

1. Broyles discloses several different ways to obtain wireless communication traffic information. One way includes determining Erlang traffic during either cell or switch peak hours, and another way includes determining “average values of network traffic capacity demands on each cell site in each market.” (*Brolyes*, col. 5, ll. 37-53).
2. Broyles describes Erlang traffic as follows: “Erlang traffic is a measurement of telephone conversation traffic where one Erlang is equal to one full hour of conversation. Erlang traffic can also include measurements of throughput/data traffic. Throughput traffic is a function of bandwidth, error performance, congestion, and other factors, and is associated with data transmission.” (*Id.*, col. 4, ll. 23-29).
3. Broyles discloses that the average values of network traffic can be input in the form of a table indicating such average values per market. Network traffic can include both voice and data traffic. The passage indicates that Erlangs constitute part of the table. (*Id.*, col. 5, ll. 44-53).
4. Broyles discloses that expected future network inputs can be determined from network forecasts or estimations which include the number of subscribers in a market, Erlangs used per subscriber during a busy hour, and the type of network. (*Id.*, col. 5, ll. 55-63). A computer compares future and current traffic inputs to determine an extrapolated future network configuration. (*Id.*, col. 5, ll. 20-36).

5. “[C]urrent and/or future capacity of a cell site may be determined by calculating a maximum number of Erlangs that a carrier can support due to a technology employed, and multiplying the maximum number of Erlangs by the number of carriers on a given cell site.” (*Id.*, col. 9, ll. 37-42). Erlangs can also be measured in the field. (*Id.*, col. 9, ll. 25-26).

6. Claim 3 of Broyles recites that “receiving input indicative of current per-sector traffic . . . comprises receiving information that indicates . . . a current amount of Erlang traffic, and a current amount of throughput traffic.” (*Id.*, col. 12, ll. 33-41). Similarly, Broyles states that a “display may include Erlang and data traffic capacity of each BTS.” (*Id.*, col. 10, ll. 31-33).

## PRINCIPLES OF LAW

“[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability.” *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). Under § 102, Appellants may sustain this burden by showing that the prior art reference relied upon by the Examiner fails to disclose an element of the claim. It is axiomatic that anticipation of a claim under § 102 can be found only if the prior art reference discloses every element of the claim. *See In re King*, 801 F.2d 1324, 1326 (Fed. Cir. 1986); *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1458 (Fed. Cir. 1984). “A reference anticipates a claim if it discloses the claimed invention ‘such that a skilled artisan could take its teachings in combination with his own knowledge of the particular art and be in possession of the invention.’” *In re*

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*Graves*, 69 F.3d 1147, 1152 (Fed. Cir. 1995)(quoting *In re LeGrice*, 301 F.2d 929, 936 (CCPA 1962)).

Under § 103, a holding of obviousness can be based on a showing that “there was an apparent reason to combine the known elements in the fashion claimed.” *KSR Int’l v. Teleflex, Inc.* 127 S. Ct. 1727, 1740-41 (2007). Such a showing requires:

“some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness” . . . . [H]owever, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.

*Id.*, 127 S. Ct. at 1741 (citation omitted).

If the Examiner’s makes such a showing, the burden then shifts to the Appellants to overcome the *prima facie* case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. *See Oetiker*, 977 F.2d at 1445.

## ANALYSIS

Appellants’ argument (Reply Br. 2) that “the Examiner is attempting to use a single metric, namely Erlang traffic, to meet two of Applicants’ claim limitations” does not correctly characterize the Examiner’s position. The Examiner identified at least two different metrics, stating that the “Broyles teachings include the flexibility of using *multiple metrics* for determining the ‘current network inputs 302’ (Col. 5, lines 37-41).” (Ans. 8, emphasis added). Toward this end, the Examiner specifically identified

tables indicating average values of traffic capacity, and also identified Erlang traffic during high traffic times. (Ans. 8-9).

Broyles reasonably supports the Examiner's position. Broyles discloses both Erlang traffic and throughput traffic (FF 1-6), thereby meeting the two disputed elements of the claim. Broyles also clearly distinguishes the two distinct metrics: Erlangs (i.e., MOU) and either "throughput" or "data" traffic (i.e. system traffic) (FF 2, 6).

Appellants do not seasonably challenge the Examiner's finding (Ans. 9-11) that Erlangs, hours of use, constitutes an implied teaching of minutes of use (MOU). While Appellants state (App. Br. 7) that an Erlang is "quite different from the MOU metric," Appellants fail to explain why. Such a mere denial does not meet Appellants' burden. *In re Morris*, 127 F.3d 1048, 1056 (Fed. Cir. 1997) ("It is the applicant's burden to precisely define the invention, not the PTO's."). One hour equals sixty minutes. As such, an Erlang equals 60 MOU, as the Examiner generally found (Ans. 9-11, *see* FF 2). Such a simple change in units does not defeat anticipation, since skilled artisans readily appreciate the correspondence. *See, Graves*, 69 F.3d 1147, 1152.

Appellants state (App. Br. 3) that system traffic is analogous to the number of cars at a peak hour, while the current MOU is analogous to the miles driven by all the drivers for any given moment. Appellants also argue (App. Br. 6) that "the system traffic level is a 'snapshot' of the system traffic at a particular time (or duration of time)" but that an "MOU . . . represents the cumulative minutes used by the subscribers over a given period of time." These arguments bolster the finding that Broyles meets the disputed claim steps. Erlangs calculated at high traffic time period and as average values

(FF 1-5) constitute both a snapshot and cumulative minutes over a given period of time. Erlangs can also be measured and/or calculated over time (with or without regard to an average), constituting snapshots and cumulative minutes (FF 3-5).

Additionally, under an alternative interpretation of the claim, Broyles discloses that system traffic determinations involve both voice and data capacity (FF 2, 3). Determining voice capacity, measured in Erlangs, meets the disputed MOU determining (second) step of the claim, whereas determining data capacity meets the disputed current system traffic (first) determining step of the claim. Under another alternative, Broyles' voice *and* data measurements meet the first step of the claim while the voice measurement (in Erlangs) meets the second step of the claim. In sum, the record supports at least two metrics, the Examiner identified at least two metrics, and Appellants fail to challenge persuasively the two metrics identified.

As such, Appellants fail to rebut the Examiner's *prima facie* case of anticipation. Appellants' related assertions (App. Br. 8-10) with respect to claims 8, 9, 12, 14, and 16 that Broyles does not mention MOUs does not establish error in the Examiner's position (Ans. 10-11) that an Erlang, a measurement involving hours or fractions of hours, implicitly constitutes a measurement in minutes, as explained above.

Accordingly, we sustain the Examiner's rejection of claims 1-9, 12, and 14-30. We also sustain the Examiner's obviousness rejection of claims 10, 11, and 13 based on Broyles, since Appellants do not present separate patentability arguments (App. Br. 10-11) for these claims either.

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## CONCLUSION

Appellants did not show that the Examiner erred in finding that Broyles discloses determining the current system traffic level and the current minutes of use (MOU) for the wireless telecommunications system as recited in representative claim 1.

## DECISION

We affirm the Examiner's decision rejecting claims 1-30.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

KIS

AT&T Legal Department - AT  
Attn: Patent Docketing  
Room 2A-207  
One AT&T Way  
Bedminster, NJ 07921